

290578US0XPCT.ST25.txt
SEQUENCE LISTING

<110> Ishida, Nobuhiro
Tokuhiro, Kenro
Nagamori, Eiji
Takahashi, Haruo
Saito, Satoshi
Ohni Shi, Tohru

<120> Promoter in the presence of organic acid and utilization thereof

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<140> 10/578,614
<141> 2006-05-08

<150> PCT/JP04/16799
<151> 2004-11-05

<150> JP 2003-379076
<151> 2003-11-07

<160> 47

<170> PatentIn version 3.3

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 cat gtc ccc cag aat aag att aca att gtt ggg gtt ggt gct gtt ggc 96
 His Val Pro Gln Asn Lys Ile Thr Ile Val Gly Val Gly Ala Val Gly
 20 25 30
 atg gcc tgt gcc atc agt atc tta atg aag gac ttg gca gat gaa gtt 144
 Met Ala Cys Ala Ile Ser Ile Leu Met Lys Asp Leu Ala Asp Glu Val
 35 40 45
 gct ctt gtt gat gtc atg gaa gat aaa ctg aag gga gag atg atg gat 192
 Ala Leu Val Asp Val Met Glu Asp Lys Leu Lys Gly Glu Met Met Asp
 50 55 60
 ctc caa cat ggc agc ctt ttc ctt aga aca cca aaa att gtc tct ggc 240
 Leu Gln His Gly Ser Leu Phe Leu Arg Thr Pro Lys Ile Val Ser Gly
 65 70 75 80
 aaa gac tat aat gtg aca gca aac tcc agg ctg gtt att atc aca gct 288
 Lys Asp Tyr Asn Val Thr Ala Asn Ser Arg Leu Val Ile Ile Thr Ala
 85 90 95
 ggg gca cgt cag caa gag gga gag agc cgt ctg aat ttg gtc cag cgt 336
 Gly Ala Arg Gln Gln Glu Gly Glu Ser Arg Leu Asn Leu Val Gln Arg
 100 105 110
 aac gtg aac atc ttt aaa ttc atc att cct aat att gta aaa tac agc 384
 Asn Val Asn Ile Phe Lys Phe Ile Ile Pro Asn Ile Val Lys Tyr Ser
 115 120 125
 cca aat tgc aag ttg ctt gtt gtt tcc aat cca gtc gat att ttg acc 432
 Pro Asn Cys Lys Leu Leu Val Val Ser Asn Pro Val Asp Ile Leu Thr
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 Tyr Val Ala Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly
 145 150 155 160
 agt ggt tgc aat ctg gat tca gct cgc ttc cgt tat ctc atg ggg gag 528
 Ser Gly Cys Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu
 165 170 175
 agg ctg gga gtt cac cca tta agc tgc cat ggg tgg atc ctt ggg gag 576
 Arg Leu Gly Val His Pro Leu Ser Cys His Gly Trp Ile Leu Gly Glu
 180 185 190
 cat ggt gac tct agt gtg cct gta tgg agt gga gtg aat gtt gct ggt 624
 His Gly Asp Ser Ser Val Pro Val Trp Ser Gly Val Asn Val Ala Gly
 195 200 205
 gtc tcc ctg aag aat tta cac cct gaa tta ggc act gat gca gat aag 672
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35 40 45

Ala Leu Val Asp Val Met Glu Asp Lys Leu Lys Gly Glu Met Met Asp
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Leu Gln His Gly Ser Leu Phe Leu Arg Thr Pro Lys Ile Val Ser Gly
65 70 75 80

Lys Asp Tyr Asn Val Thr Ala Asn Ser Arg Leu Val Ile Ile Thr Ala
85 90 95

Gly Ala Arg Gln Gln Glu Gly Glu Ser Arg Leu Asn Leu Val Gln Arg
Page 6

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Tyr Val Ala Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly
145 150 155 160

Ser Gly Cys Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu
165 170 175

Arg Leu Gly Val His Pro Leu Ser Cys His Gly Trp Ile Leu Gly Glu
180 185 190

His Gly Asp Ser Ser Val Pro Val Trp Ser Gly Val Asn Val Ala Gly
195 200 205

Val Ser Leu Lys Asn Leu His Pro Glu Leu Gly Thr Asp Ala Asp Lys
210 215 220

Glu Gln Trp Lys Ala Val His Lys Gln Val Val Asp Ser Ala Tyr Glu
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Val Ile Lys Leu Lys Gly Tyr Thr Ser Trp Ala Ile Gly Leu Ser Val
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Ala Asp Leu Ala Glu Ser Ile Met Lys Asn Leu Arg Arg Val His Pro
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Ile Ser Thr Met Ile Lys Gly Leu Tyr Gly Ile Lys Glu Asp Val Phe
275 280 285

Leu Ser Val Pro Cys Ile Leu Gly Gln Asn Gly Ile Ser Asp Val Val
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<220>
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<210> 38
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<220>
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 <400> 38
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<210> 39
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 1 5 10

aaa gaa gaa cat gtt cca caa aat aaa att act att gtt ggt gtt ggt
 Lys Glu Glu His Val Pro Gln Asn Lys Ile Thr Ile Val Gly Val Gly 99

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15	20	25	
gct gtt ggt atg gct tgt	gct att tct att ttg atg	aaa gat ttg gct	147
Ala Val Gly Met Ala Cys	Ala Ile Ser Ile Leu Met	Lys Asp Leu Ala	
30	35	40	45
gat gaa gtt gct ttg gtt	gat gtt atg gaa gat	aaa ttg aaa ggt gaa	195
Asp Glu Val Ala Leu Val	Asp Val Met Glu Asp Lys	Leu Lys Gly Glu	
50	55	60	
atg atg gat ttg caa cat	ggt tct ttg ttt ttg aga	act cca aaa att	243
Met Met Asp Leu Gln His	Gly Ser Leu Phe Leu Arg	Thr Pro Lys Ile	
65	70	75	
gtt tct ggt aaa gat tat	aat gtt act gct aat tct	aga ttg gtt att	291
Val Ser Gly Lys Asp Tyr	Asn Val Thr Ala Asn Ser	Arg Leu Val Ile	
80	85	90	
att act gct ggt gct aga	caa caa gaa ggt gaa	tct aga ttg aat ttg	339
Ile Thr Ala Gly Ala Arg	Gln Gln Glu Gly Glu	Ser Arg Leu Asn Leu	
95	100	105	
gtt caa aga aat gtt aat	att att ttt aaa ttt att	att cca aat att gtt	387
Val Gln Arg Asn Val Asn	Ile Phe Lys Phe Ile Ile	Pro Asn Ile Val	
110	115	120	125
aaa tat tct cca aat tgt	aaa ttg ttg gtt tct	aat cca gtt gat	435
Lys Tyr Ser Pro Asn Cys	Lys Leu Leu Val Val	Ser Asn Pro Val Asp	
130	135	140	
att ttg act tat gtt gct	tgg aaa att tct ggt	ttt cca aaa aat aga	483
Ile Leu Thr Tyr Val Ala	Trp Lys Ile Ser Gly	Phe Pro Lys Asn Arg	
145	150	155	
gtt att ggt tct ggt tgt	aat ttg gat tct gct	aga ttt aga tat ttg	531
Val Ile Gly Ser Gly Cys	Asn Leu Asp Ser Ala	Arg Phe Arg Tyr Leu	
160	165	170	
atg ggt gaa aga ttg ggt	gtt cat cca ttg tct	tgt cat ggt ttg att	579
Met Gly Glu Arg Leu Gly	Val His Pro Leu Ser	Cys His Gly Trp Ile	
175	180	185	
ttg ggt gaa cat ggt gat	tct tct gtt cca gtt	tgg tct ggt gtt aat	627
Leu Gly Glu His Gly Asp	Ser Ser Val Pro Val	Trp Ser Gly Val Asn	
190	195	200	205
gtt gct ggt gtt tct ttg	aaa aat ttg cat cca	gaa ttg ggt act gat	675
Val Ala Gly Val Ser Leu	Lys Asn Leu His Pro	Glu Leu Gly Thr Asp	
210	215	220	
gct gat aaa gaa caa tgg	aaa gct gtt cat aaa	caa gtt gtt gat tct	723
Ala Asp Lys Glu Gln Trp	Lys Ala Val His Lys	Gln Val Val Asp Ser	
225	230	235	
gct tat gaa gtt att aaa	ttg aaa ggt tat act	tct tgg gct att ggt	771
Ala Tyr Glu Val Ile Lys	Leu Lys Gly Tyr Thr	Ser Trp Ala Ile Gly	
240	245	250	
ttg tct gtt gct gat ttg	gct gaa tct att atg	aaa aat ttg aga aga	819
Leu Ser Val Ala Asp Leu	Ala Glu Ser Ile Met	Lys Asn Leu Arg Arg	
255	260	265	
gtt cat cca att tct act	atg att aaa ggt ttg	tat ggt att aaa gaa	867

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Val	His	Pro	Ile	Ser	Thr	Met	Ile	Lys	Gly	Leu	Tyr	Gly	Ile	Lys	Glu	
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Asp	Val	Phe	Leu	Ser	Val	Pro	Cys	Ile	Leu	Gly	Gln	Asn	Gly	Ile	Ser	
									295					300		
gat	gtt	gtt	aaa	gtt	act	ttg	act	cat	gaa	gaa	gct	tgt	ttg	aaa		963
Asp	Val	Val	Lys	Val	Thr	Leu	Thr	His	Glu	Glu	Glu	Ala	Cys	Leu	Lys	
			305					310					315			
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Lys	Ser	Ala	Asp	Thr	Leu	Trp	Gly	Ile	Gln	Lys	Glu	Leu	Gln	Phe		
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Met	Ala	Thr	Leu	Lys	Asp	Gln	Leu	Ile	Gln	Asn	Leu	Leu	Lys	Glu	Glu	
1				5				10						15		
His	Val	Pro	Gln	Asn	Lys	Ile	Thr	Ile	Val	Gly	Val	Gly	Ala	Val	Gly	
			20					25					30			
Met	Ala	Cys	Ala	Ile	Ser	Ile	Leu	Met	Lys	Asp	Leu	Ala	Asp	Glu	Val	
		35				40							45			
Ala	Leu	Val	Asp	Val	Met	Glu	Asp	Lys	Leu	Lys	Gly	Glu	Met	Met	Asp	
		50			55						60					
Leu	Gln	His	Gly	Ser	Leu	Phe	Leu	Arg	Thr	Pro	Lys	Ile	Val	Ser	Gly	
		65				70					75			80		
Lys	Asp	Tyr	Asn	Val	Thr	Ala	Asn	Ser	Arg	Leu	Val	Ile	Ile	Thr	Ala	
		85					90						95			
Gly	Ala	Arg	Gln	Gln	Glu	Gly	Glu	Ser	Arg	Leu	Asn	Leu	Val	Gln	Arg	
		100				105							110			
Asn	Val	Asn	Ile	Phe	Lys	Phe	Ile	Ile	Pro	Asn	Ile	Val	Lys	Tyr	Ser	
		115			120							125				
Pro	Asn	Cys	Lys	Leu	Leu	Val	Val	Ser	Asn	Pro	Val	Asp	Ile	Leu	Thr	
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Tyr Val Ala Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly
145 150 155 160

Ser Gly Cys Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu
165 170 175

Arg Leu Gly Val His Pro Leu Ser Cys His Gly Trp Ile Leu Gly Glu
180 185 190

His Gly Asp Ser Ser Val Pro Val Trp Ser Gly Val Asn Val Ala Gly
195 200 205

Val Ser Leu Lys Asn Leu His Pro Glu Leu Gly Thr Asp Ala Asp Lys
210 215 220

Glu Gln Trp Lys Ala Val His Lys Gln Val Val Asp Ser Ala Tyr Glu
225 230 235 240

Val Ile Lys Leu Lys Gly Tyr Thr Ser Trp Ala Ile Gly Leu Ser Val
245 250 255

Ala Asp Leu Ala Glu Ser Ile Met Lys Asn Leu Arg Arg Val His Pro
260 265 270

Ile Ser Thr Met Ile Lys Gly Leu Tyr Gly Ile Lys Glu Asp Val Phe
275 280 285

Leu Ser Val Pro Cys Ile Leu Gly Gln Asn Gly Ile Ser Asp Val Val
290 295 300

Lys Val Thr Leu Thr His Glu Glu Glu Ala Cys Leu Lys Lys Ser Ala
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Asp Thr Leu Trp Gly Ile Gln Lys Glu Leu Gln Phe
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atatatgaat tctttgattg atttgactgt g	